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Senile Obliteration of the Uterine Cervical Canal

BY

HENRY F. CAMPBELL, M. D.

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PREMATURE SENILE OBLITERATION OF THE UTERINE CERVICAL CANAL.

BY HENRY F. CAMPBELL, M. D.,

Augusta, Ga.

UNDER the above title I desire to present to the Society two cases of uterine abnormity, entirely exceptional in my own experience, though, as will be shown hereafter, not altogether unprecedented in the recorded observations of others.

The changes of form, proportions, and constitution which the uterus undergoes in its progress from infancy to old age have been long familiar to every one. The valuable researches and delineations of Arthur Farre, of London,[1] have given a definiteness to our knowledge on the subject not before attained. By these it is shown that the human uterus, in the development and in the decline of its functional activity, experiences, on the one hand, a rapid increase in volume, the maximum being attained during the menstrual and childbearing age, and on the other, a more or less rapid atrophy from the menopause to extreme old age.

"Twice a child" may perhaps more accurately be stated of the uterus than of any other single organ of the human economy and it is more inevitably exemplified here than as applied to any mental or other physical condition of senility. In the thinning of its walls, in the narrowing of its cavity, in the contraction or obliteration of its canal, and in its gradual and final return to the rudimentary condition of childhood, we read a history of ended function and of atrophy; where in the infant, had been read the prophecy of coming potentiality and of wonderful development. Under

[1] See Todd's *Cyclopædia, Anatomy and Physiology.*

strictly normal conditions, the stages of gradual decadence are traversed with no more — indeed with far less — of either local or constitutional disturbance than is obvious in the developmental periods from infancy to womanhood. The structural changes of the organ progress *pari passu* with, and in exact response to, the decline of its functional activity. The accuracy of this correllation is a marked and important feature in the process; unless secretion and elimination have ceased ere the atrophy and obliteration of the uterine canal have been completed, accumulations and distentions must result, giving rise to uncomfortable symptoms if not to structural change. As such aberrant conditions are believed to be uncommon, and the morbid manifestations resulting from them to be obscure, I am induced to give the details of the two following cases: —

CASE I. *Senile obliteration of the cervical canal with accumulation within and distention of the uterine cavity. — Evacuation by incision and dilatation. — The patient a virgin.*

August 4, 1876. I was called to Miss N. H., aged fifty-five years, in consultation with Dr. Amory Coffin, of Aiken, S. C. The history given by the patient — a highly cultivated and intelligent maiden lady — was, that her constitution was originally fragile and delicate. She had suffered for many years with nervous derangements and dyspepsia. During her menstrual life, though in delicate health, there had been nothing abnormal in her uterine functions. Menstruation had ceased naturally some six or eight years previously, without any observable increase, at first, in her habitual nervous excitability. Whatever discomfort she experienced, was attributed, at that time, more to general ill health than to the cessation of the menstrual flow.

For the past few years she had observed a discharge from the vagina which was by no means constant but rather irregular and intermittent. Often many days would pass without any flow, and then it would be quite profuse, being at such times attended with considerable relief from a sense of weight and pressure in the pelvic region. This discharge was described as highly offensive, but it had ceased for many months. With its arrest her nervous excitability and pelvic distress had greatly increased, until the suffering had become "almost unendurable." For this reason

she was compelled to submit to examination and to any operative treatment promising relief.

The lady was of well-marked nervous temperament; was extremely emaciated; and had been confined to bed for several months. On external examination I found the abdomen sunken and the muscular walls attenuated. In the hypogastric region, a tumor was quite prominent; it projected above the symphysis pubis nearly half way to the umbilicus. It was centrally located and hard, and was said not to disappear or diminish on evacuation of the bladder. There was sometimes difficulty in micturition as well as frequent vesical tenesmus.

As the patient refused anesthesia, the digital examination per vaginam was difficult and painful, owing to the presence of the hymen and the extreme rigidity of the contracted ostium vaginæ. The uterus, which was enlarged and prolapsed, was identified by bimanual manipulation, as the tumor in the hypogastrium. There was probably no adhesion, but certainly some degree of impaction fixing the uterus in its low position. The vagina, though moist, was free from excessive leucorrheal accumulation. There was no odor to the vaginal secretions, nor any inflammatory condition.

With much difficulty the smaller blade of Sims' speculum was introduced, and the interior of the vagina and cervix explored. The neck was atrophied and short, the os externum, though still remaining, was very minute, — merely large enough to admit the point of an ordinary probe. The probe was arrested just within the os externum and no prudent degree of pressure could cause it to advance.

Operation. A small tenotomy knife was now carefully introduced by the side of the silver probe and cautiously pushed for a short distance in the direction of the canal. As the knife advanced the probe was made to follow the puncture by the side of it. In a short time the probe was felt suddenly to "miss resistance," and immediately a few drops of a thinnish creamy discharge began to flow from the os. It came in a minute stream on the withdrawal of the probe and knife. This discharge was intolerably offensive ; the odor was pungent and peculiar, unlike disorganized blood or putrefying pus or animal tissue; it more nearly resembled the rotten-egg effluvium than anything else to which I can compare it. By means of a grooved director and the knife the canal was still further enlarged. The offensive fluid

was rapidly discharged, and when measured amounted to nearly eight ounces. The patient being greatly exhausted by the pain the speculum, or rather the blunt gorget, was removed before the contents of the uterine cavity had been entirely discharged. The vagina was thoroughly washed out with a weak solution of chlorinated soda, an opiate given, and the patient placed comfortably in bed.

On examination the tumor was found to be greatly diminished but could still be felt above the pubes. The after-treatment consisted in repeated daily injections of warm water with Labarraque's solution or with carbolic acid. The offensive discharge gradually diminished, and, under a supporting and tonic treatment Miss H. for a time was comparatively comfortable, but experienced little or no benefit to her general condition.

January 26, 1877. Miss H. came to Augusta for further treatment. She stated that the offensive discharge from the vagina had continued but a few days after the operation. She felt confident that the uterus was still distended by a considerable accumulation and that another operation was necessary.

On examination the uterus was found still much enlarged and deeply prolapsed. There was much tenderness in the hypogastrium with vesical tenesmus. The opening made by the former operation had completely closed.

Without the use of the knife and with but moderate pressure the uterine probe was pushed through the cervical obstruction into the distended uterine cavity. A considerable quantity of the offensive discharge followed, but soon ceased, apparently from deficient dilatation. Feeling confident that the uterine cavity had never been entirely emptied of the original accumulation, a number six sponge tent was introduced at night, and a morphine puncture made.

January 27, 10 o'clock A. M. The patient had rested but little. The tent had fully expanded. The cervical canal was well dilated and the removal of the tent was followed by a gush of the indescribably offensive fluid.

The vagina was washed out daily with a weak carbolic acid solution. Tonics and nourishing diet were enjoined with stimulants to relieve the frequent fits of nervous depression.

Miss H. remained under my observation for about ten days and then returned to Aiken. By repeated trials with the sound the patulousness of the cervical canal was known to have been

maintained. The offensive accumulation seemed soon to be all evacuated, and at the time of her return home there remained only a moderate and natural uterine leucorrhea. The hypogastric tenderness had entirely disappeared, the uterus had greatly diminished in size and was freely movable. There was no engorgement, ulceration, inflammation, or other structural change in the organ.

July 7, 1877. Called by another patient to Aiken, I was requested by Dr. Coffin to visit Miss H. She was in an extremely low condition. Though long since freed from all symptoms of pelvic disorder, her nervous system had never rallied from the devastation her complicated ills had wrought. She was extremely emaciated and cachectic. No special examination was thought of, or could be made. She died from irritative fever and exhaustion soon after.

The following case, though widely differing in the history and general condition of the patient as well as in the result, yet in many essential particulars will be recognized as almost identical with the one just described.

CASE II. *Senile obliteration of cervical canal. — Patient a multipara.*

April 4, 1878. Mrs. L. Z., of South Carolina, aged about fifty-eight years, is the mother of some eight or ten comely and healthy children, the youngest being a daughter of about sixteen. Menstruation, which had always been regular, had ceased, without any particular disturbance, some eight or nine years ago. Her general health had been continually good, and she had led and enjoyed a most active life in the country, up to some three or four months ago. She complained now of pain in the loins, had a sense of weight in the pelvis. She was frequently annoyed with rectal tenesmus and also vesical irritation. She further stated that she had never before had leucorrhea, but that now, at long intervals — sometimes weeks apart — she became aware of a "sudden gush" of a most offensive fluid from the vagina. This had alarmed both herself and the family — suggesting cancer.

On account of her age and the offensive character of the discharge, notwithstanding the healthful appearance of the patient, I began the examination seriously apprehending myself some malignant disease. The uterus was much enlarged, low in the pelvis,

and about horizontally retroverted, but readily replaced with a sense of relief to the patient. On examination by the speculum the neck of the uterus was to all appearance entirely normal for a woman of her age. The neck had been considerably diminished by senile atrophy. The external os was very small and the canal apparently occluded.

A soft-rubber ring-pessary was introduced and directions given for the use, night and morning, of hot vaginal injections with the addition of carbolized glycerine.

From the moment of the application of the pessary, this lady declared that she was entirely relieved of discomfort. She left her room in the hotel and went into the streets "to attend to much business she had on hand." She was so evidently relieved that I dismissed my apprehensions about malignancy, and regarded the case as a rare instance of uterine engorgement and displacement, such as sometimes exists even in advanced life. The circumstances and condition of this lady were so entirely different, that it can scarcely surprise any one, that no parallel was suggested to my mind between this case and the one just related.

June 26. Mrs. Z. returned with the report that she had been greatly relieved by the support up to within a week or ten days ago, but that now she had began to suffer again as before. She had a distressed look, complained of restlessness at night, and of the recurrence of the offensive discharge, bringing back all her apprehensions.

Suspecting now some accumulation in the interior of the womb, I determined to traverse the cervical canal. A very small uterine probe was used which passed throngh the obstruction in the neck with but little difficulty. When withdrawn, the unpleasant odor was, in some degree, perceptible, though none of the fluid escaped.

Dilatation of cervical canal was soon effected. Probes and three conical bougies of gradually increasing size were successively applied. There being but little sensitiveness in the os, Knott's, and, soon after, Wilson's cervical dilators were used, by which the canal was reëstablished. The evacuated fluid was of about the consistence of thickened milk, closely resembling in its offensive odor that previously described. It measured nearly six ounces. The uterine cavity seemed entirely emptied.

Mrs. Z. remained in her room, mostly in bed, for about ten

days. The daily irrigation of the vagina with hot water and weak carbolized solutions was continued during this time. The uterus was undergoing rapid reduction, but was still large and heavy at the time of her return home.

During this time of operative treatment no other medicine was administered but *quinine*, as has been my rule after all operations on the uterus, and, indeed, *on every other part of the body*, — to prevent fever and control inflammation. A soft-rubber ring-pessary was worn for some months with great comfort, and as a precaution against displacement. I cannot say whether it was necessary or not.

I have seen this lady many times since she ceased to be my patient. Her health seems perfect in every particular and she declares that she has not experienced a single unpleasant symptom or sensation, "since getting clear of that collection," which she says "was the only thing that was the matter with her." And I do not know that the *truth* of the case could, by any one, be more definitely or clearly stated. It was a "collection — *only that* and *nothing more*."

Under the head of "Chronic Internal Metritis," Dr. Tilt discusses a number of cases which, though analogous to the above, are none of them identical in their essential characteristics: "During the last ten years, I have seen three cases in which 'during the dodging time' the patient suddenly passed more or less fetid pus at menstrual periods, after a moderate amount of uterine pain; and in one instance this was repeated after six successive menstrual periods. He refers to cases of a similar nature described by Dr. Matthews Duncan as "the uterine leucorrhea of old women." In one case, where the discharge had been muco-purulent, Dr. Duncan had had the opportunity of examination. "He found the walls of the uterus abnormally thin and soft, and the mucous membrane of the uterine cavity had an irregular and almost ragged surface, the depressions being apparently seats of ulceration."

In affixing the title, as given at the beginning of this paper, I intended it as a statement of what I regard as essentially the pathology of the affection — namely, *premature senile obliteration*. Under the influence of senility the cer-

vical canal becomes gradually contracted, and, at last, completely occluded, in some cases prematurely, that is, before the mucous membrane of the uterine cavity has ceased to secrete. Whether the elements constituting the imprisoned contents are simply mucous or whether exfoliation and disintegration of the lining membrane have continued, as is said to occur under the menstrual *nisus*, I will not undertake to decide, as the microscope was not used in either of my cases. I cannot agree with Dr. Tilt, that the mucous lining of the womb under these circumstances is necessarily unhealthy and consequently continues to secrete. The secretory surface is most probably healthy and the secretion at first normal, but the gradually contracting cervical canal more and more restricts its exit, and detains the fluid within the cavity, while access of the external air is still possible. This most probably accounts for the putrefaction and peculiar stench of the fluid that may pass the obstruction or that after complete obliteration is evacuated by operation. Normally, as a rule, all excretory ducts remain patulous and traversable, so long as the surface or gland furnishing the secretion maintains its function; in the present cases this law of correlation is violated by the premature obliteration of the excretory *canal*, while yet the functional activity of the secreting *surface* still remains. The pathology here is senile stenosis of the cervix and not metritis of the body of the womb.

The two cases appear to afford a fair ground for the above view. In Case I., though from other causes the patient continued to decline, yet on the evacuation of the uterine contents all pelvic and uterine symptoms disappeared, there being no evidence of endometritis or of other disease of the womb. In Case II., the absence of all inflammatory conditions was even more markedly obvious;—pressure symptoms simply from displacement seemed to be the sole cause of her discomfort. There was no hypogastric tenderness, no febrile action, no leucorrhea. Support of the heavy and distended uterus by a pessary gave immediate relief, and restored her, for a considerable time, to full

participation in her household duties. In time, the gradually increasing accumulation — activity of secretion, no doubt, being exaggerated by distention — overbalanced with its weight the support of the ring and rendered evacuation imperative. Complete evacuation of the cavity having been accomplished the uterus shrank to normal proportions, reascended and resumed its normal condition for a woman of that age; no after-treatment for endometritis was applied — not even quiet observed. If metritis, in any degree, existed, certainly resolution was entirely unassisted and spontaneous after evacuation of the cavity. Unquestionably then, in this case at least, there could have been no "thinning or softening of the uterine wall," "no irregular or ragged surface of mucous membrane," or "seats of ulceration," as Dr. Matthews Duncan found in his post-mortem.

The two foregoing cases have been rather carefully detailed, from the conviction that, though heretofore unrecognized in my own practice, they present fairly typical illustrations of a class of abnormities probably by no means uncommon in women who have passed their menopause.

In the light thrown by the present cases upon my past experience I can recall a limited number of similar cases. The interpretation given to them at the time, though never satisfactory, corresponded generally with the diagnosis made in Case No. II., namely, displacement from relaxed ligaments, deficient pelvic "cushion," and inadequate support. These cases were sometimes accompanied by prolapses of the bladder and protrusion of the anterior wall of the vagina.

The treatment advised has been nightly self-replacement in knee and breast posture with vaginal irrigation, and some simple form of pessary for the support of the womb and unfolding of the vagina. This, it will be observed, answered well for a time in Case II., though finally it became ineffectual; the true nature of the complaint was then revealed by the occurrence of the offensive uterine discharge, when she was entirely and permanently relieved by evacuation. In several cases which I can now recall, I can but believe that

the same measures would have been followed by like fortunate and striking results, instead of the protracted discomfort incident to the chances of absorption which it is said, and, perhaps, with truth, may ultimately occur.

Among such cases, unrecognized at the time, is that of a lady of nearly sixty years, residing in a distant portion of this State, who, refusing to use a pessary, depends for comfort upon frequent replacement of the womb by means of the pneumatic repositor and the postural maneuver. This case with many others under the care of the profession would, I believe, find prompt relief in evacuation of the uterine cavity by reopening the prematurely obliterated cervical canal.